AMENDMENTS TO THE CLAIMS

The following listing of claims will replace all prior versions, and listings, of claims in the captioned patent application.

Listing of Claims

Claims 1-19. (Cancelled)

20. (New) A coiled spring battery contact with an upper end turn having a terminal contact point that imparts a pressure sufficient to rupture an insulating contaminant layer on an abutting battery terminal surface.

21. (New) The contact of claim 20, wherein the terminal contact point scrapes the contaminant layer from the terminal surface.

22. (New) The contact of claim 21, wherein the coiled spring contact comprises a plurality of concentric windings defining an axis of rotation, wherein the terminal contact point is eccentrically located on the upper end turn.

23. (New) The contact of claim 22, wherein during battery installation the coiled spring contact compresses to cause the terminal contact point to laterally shift in the direction of eccentricity.

24. (New) The contact of claim 23, wherein the coiled spring contact is constructed and arranged such that the shifting of the terminal contact point provides a contact wiping motion against the abutting battery terminal surface with a pressure sufficient to remove the contaminant layer from the terminal surface.

25. (New) The contact of claim 21, wherein the axis of rotation and a longitudinal axis of the abutting battery are substantially parallel with each other.

26. (New) The contact of claim 25, wherein the axis of rotation is coextensive with a longitudinal axis of the abutting battery.

27. (New) The contact of claim 20, wherein the upper end turn comprises a bend an apex of which forms the terminal contact point.

28. (New) The contact of claim 27, wherein the upper end turn has formed therein a hairpin turn the apex of which forms the terminal contact point.

29. (New) A battery-powered device with a battery compartment comprising a coiled spring contact that contacts an abutting terminal of an installed battery with at least one raised terminal contact point of an upper end turn of the contact.

30. (New) The device of claim 29, wherein the coiled spring contact comprises a plurality of concentric windings terminating in the upper end turn and a lower end turn on opposing ends of the contact.

31. (New) The device of claim 29, wherein a distal end of the contact is configured to have a lead attached to it.

32. (New) The device of claim 29, further comprising one or more of the group consisting of a crimp-on connector, a connector sleeve and a solder connection, to attach the lead to the distal end of the coiled spring contact.

33. (New) The device of claim 30, wherein the plurality of windings have varying diameters.

34. (New) The device of claim 33, wherein the windings have a larger diameter toward the lower end turn and smaller diameter toward the upper end turn.

35. (New) The device of claim 30, wherein the coiled spring contact has an axis of rotation defined by the windings, and wherein the terminal contact point is laterally offset from the axis in a first direction causing regions of the windings in the first lateral direction to compress more that other regions of the windings when the contact is subject to a compression force applied by an installed battery, thereby causing the terminal contact point to shift further in the first lateral direction.

36. (New) A battery-powered device comprising a battery compartment with a coiled spring battery contact disposed in the compartment to scrape away a portion of an insulating contaminant layer from a surface of an abutting terminal of an installed battery.

37. (New) The device of claim 36, wherein the coiled spring contact comprises a plurality of concentric windings contiguous with an upper end turn with a terminal contact point laterally offset from an axis of rotation defined by the windings.

38. (New) The device of claim 37, wherein the terminal contact point that imparts a pressure sufficient to rupture the insulating contaminant layer on the abutting battery terminal surface.

39. (New) The device of claim 37, wherein during battery installation the coiled spring contact compresses in a manner that causes the terminal contact point to laterally shift away from the axis of rotation, thereby scraping insulating contaminant layer, if any, disposed on the battery terminal.

40. (New) The device of claim 37, wherein the upper end turn is formed with a bend with an apex facing into the battery compartment to form the terminal contact point.

41. (New) A battery-powered device comprising:

a battery compartment configured to receive one or more batteries;

a unitary coiled spring contact with a lower end turn secured to an interior of the housing and an upper end turn for contacting a terminal of an installed battery; and

an electrical lead connected to the upper end turn of the coiled spring contact.

42. (New) The device of claim 41, the upper end turn comprises a forward-most terminal contact point to impart a pressure sufficient to rupture an insulating contaminant layer on an abutting surface of a terminal of a battery installed in the compartment, and wherein the lead is connected to the coiled spring contact proximate to the terminal contact point.

43. (New) The device of claim 41, wherein the lead is connected to a distal end of the coiled spring contact.

44. (New) The device of claim 43, further comprising one or more of the group consisting of a crimp-on connector, a connector sleeve and a solder connection, to connect the lead to the coiled spring contact.

45. (New) A battery-powered device comprising:

a battery compartment; and

a coiled spring battery contact comprising means for rupturing an insulating contaminant layer on a localized region of an abutting battery terminal surface.

46. (New) The device of claim 45, wherein the coiled spring battery contact further comprises:

means for scraping the insulating contaminant layer from the terminal surface as the battery is installed in the compartment.

47. (New) The contact of claim 45, wherein the coiled spring contact comprises a plurality of concentric windings, and wherein the rupturing means comprises at least one bend in an upper turn of the coiled spring contact, each bend having an apex facing into the battery compartment to define a terminal contact point.

48. (New) The contact of claim 46, wherein the coiled spring contact comprises a plurality of concentric windings defining an axis of rotation, and wherein the scraping means comprises a bend on an upper turn of the coiled spring contact laterally offset from the axis of rotation, the bend having an apex facing into the battery compartment to define a terminal contact point.

49. (New) A method for minimizing battery-to-device contact resistance stemming from an insulating contaminant layer on a surface of a terminal of an installed battery, comprising:

receiving one or more batteries in a battery compartment; and

rupturing an insulating contaminant layer on a localized region of the surface of an abutting battery terminal.

50. (New) The method of claim 49, further comprising:

scraping the insulating contaminant layer from the terminal surface as the battery is installed in the compartment.